Terrestrial Vertebrates Associated With Late-Successional and Old-Growth Forests in National Forests Within the Range of the Northern Spotted Owl ("Long List")

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Key

This list consists of species of amphibians, reptiles, birds, and mammals that constitute the "long list". The objective was to include all old-growth/mature associated species within the range of the northern spotted owl. A species was put on the list if any of the references indicated use of mature or old-growth (late-successional) forest habitat or features (down logs or large snags). The species on this list may not be dependent or closely associated with mature or old-growth forests or their components but may merely be reported to use one of these habitats. Nine references were used to identify species for this long list (listed here in order of appearance in the table):

```
RP = USDI (1992)
UF - Ruggiero et al. (1991)
SVO = Marshall (1992)
LSO = Marcot et al. (in prep.)
PS = Rodrick and Milner (1991)
KP = Foster (1992) and Macfarlane et al. (1991)
OFW = Marshall (1991)
WOW = Brown (1985)
CWH = California Department of Fish and Game (see description below)
```

To clarify how the selection of species was done, the following about the references should be noted:

Species from Brown (1985; coded as WOW) were included if they were denoted as primary or secondary user of large sawtimber or old-growth forest age classes in evergreen hardwood, conifer hardwood, mixed coniferous, temperate, high temperate, subalpine park or lodgepole pine forests. The latter three types were included because they are considered dispersal habitat for the spotted owl.

Species from California Department of Fish and Game's Habitat Relationship System (1989 version; coded as CWH) were sorted for those species associated with mixed conifer or Douglas-fir forest types, medium or large tree forest age classes, and moderate (40-59 percent) or dense (60-100 percent) crown closure classes.

Species from Ruggiero et al. (1991:456-462; coded as UF) were included if they were denoted as present (P), associated (+), or closely associated (*) with the mature old-growth age classes.

Species from the Draft Recovery Plan for the Northern Spotted Owl (USDI 1992:341,343,346; coded as RP) were included as listed in their Table D.1 (birds), Table D.2 (mammals), or Table D.3 (amphibians and reptiles).

Key (continued)

For the remaining references, the narratives for each species were reviewed. If association with late-successional forest habitats or features were indicated, the species were included on the list.

Other codes used in the column headings:

USFWS = USDI Fish and Wildlife Service

WA = Washington

OR = Oregon

CA = California

OG = old-growth forest

Endemic - degree of endemism in the Pacific Northwest; Loc - locally

endemic, Broa = broadly distributed throughout the Pacific Northwest within the range of the northern spotted owl

Columns labeled A through I = see text, Table 5-1, for factors for identifying

species closely associated with old-growth forests

Columns labeled 1 through 4"= see text, Table 5-1, for criteria for identifying species closely associated with old-growth forests

Conclusion = indicated if a species is included in the "short list" of species closely associated with old-growth forests

Appendix 5-A Terrestrial Vertebrates ("Long List") - Amphibians

		L/I h/D	14115-150	Defen	ence	5			70
Species	AP.	UF	SVQ	LSO,	28	(C)	OFW	wo	CWH

USFWS	Ú.	Inform	neto	n fron	LIS	WS	Draft F	ecove	ry Plan (Anthony et	ai)
listing	Sta	State isting OG assoc.					OG assoc. Entlemic WA OR CA Let Brea			
status	WA	OH	CA	WA	OR	CA	Let	Bros	Reference	

Amphibians								
Oregon Slender salamander	×	×	X	×		×	×	
Larch Mt. salamander	×		x	-	×	×	×	
Sisklyou Mt. salamanuer	×		×		1	×	×	,
Del Norte salamender	×	×	x	×		1 ×	×	
Van Dyke's salamander	×		-		x		×	-
Mount Lytil salamander			-				-	×
Dunn's salamander	×	×		×	×		×	1
Western red-backed salamander	1 x	×					×	
Black salamander	×	x	×			-	×	×
California slander salamander		×	×	×			×	-
Clouded salamander	×	×	×	×		×	-	×
Arboresi salamander	-				1	1 2		×
Ensating	x	×		×			×	-
Pacific grant selamander	×	×		x			×	×
Cope's gant salamander	×	×	×	*		×		-
Olympic salamender	×	×	×	x		×	x	×
Northwestern salamender	×	×		×		-	×	
Shasta salamandur	×	-						×
Red belied newt						1		×
Roughskin newt		х		×		1 "		×
Pacific treefrog		x					X	x
Tailed frog	×	x	×			×	×	×
Cascades frog	×		×	-	-	-1-2	x	-
Red legged trog	1 x	x	×		-	1	^	
Wastern spotted frog	×	7	×		×			-
Footrill yellow-legged trog	×	×	×	-		-		-
Western Toad	x	-	^	-		-	-	×
Northern leopard frog	1						-	^

	1000	SC			+	1	X		Ruppiero et al. 1961
C2	C	SC			*		X		Beatty et al. 1991
C2	1	SC		53			X		Beatty et al. 1991
CS	1	SC	SC				X		Roppiero et al. 1991
C3	C			+			X		Beatty 1991 pers comm
	C	1110			+	?	χ_		Ruggiero et al. 1991
						1	X		Ruggiero et al. 1991
		SC	- 1	-				X	
		SC			+	+	х		Ruggiero et al. 1991
						*	-		Ruggievo et al 1901
				+	+	•		X	Rapheel 1988
-		4.5		+	?		X	100	Pugglero at al. 1991
_	SC	SC	SC	+				X	Auggiero et al 1991
-				•	+	7	X		Ruggiero et al. 1991
C5		-	T				X		Beatty et al. 1961
	-			٠					Ruggiero et al. 1991
	SC	SC	SC	+ 1	+			X	Auggiero et al. 1991
C5		SC	SC			S.,,	X	T	Beatty et al. 1991
C2		SC	SC			7	We !	X	Ruggiero et al. 1991
C5	C	SC			2				Bearry at al. 1991
CS		SC	SC	100	?			X	Rupgero et al. 1991
		11.0	1000				1		Beatty 1991 pers. comm

Appendic 5-A Terrestrial Vertebrates ("Long List") - Amphibians (continued)

		abundant							
		forest		Requires		Federal	USFS	40.0	Inadeq.
	field	SAT	Assoc w/	OG	USFWS	USFWS	sensitive	State	field
	data		OG forest	The state of the s	T&E	Candidat	species	list	data
Species	A	В	С	D	E	F	G	Н	1
Amphibians	-								
Oregon Slender salamander			X	Х				Х	
Larch Mt. salamander	X					х	R6	Х	
Siskiyou Mt. salamander			/ x	X		Х	R6	Х	
Del Norte salamander	Х		Х	Х		Х	R6	Х	
Van Dyke's salamander		, , ,	X	χ		Х		Х	
Mount Lyell salamander									
Dunn's salamander			X	X				Х	
Western red-backed salamander									
Black salamander		X						Х	
California slender salamander			х	х					
Clouded salamander			X	Х				Х	
Arboreal salamander				Х					X
Ensatina			х						
Pacific giant salamander	х	x?	Х						
Cope's giant salamander		x?	х				R6		Х
Olympic salamander	Х							х	
Northwestern salamander	X								
Shasta salamander		x?				X		Х	x?
Red-bellied newt									
Roughskin newt	X		X						
Pacific treefrog									
Tailed frog	х							х	
Cascades frog						X		X	
Red-legged frog						Х	R6	x	
Western spotted frog					1	X		х	
Foothill yellow-legged frog						X		х	
Mostora Tond	1					100		-	-

Western Toad Northern leopard frog

Appendix 5-A Terrestrial Vertebrates ("Long List") - Amphibians (continued)

	-	973.1 77			Conclusion	9	
					On old-growth associated		
-	10 00	Series III	associa	MAC HOL	association	100	
Species		2	3	4	list? *	Comments	1015

Amphibians					
Oregon Siender salamander		X		YES	uses down logs
Larch Mt. salamander	×	-	×	YES	also protected in forest plans
Siskyou Mt. salamander		×		YES	threatened in Calif
Del Norte salamander	×	×	×	YES	
Van Dyke's salamander		×		YES	uses down logs
Mount Lyell salamander			- 1	ng	Treat do the large
Dunn's salamander		×	2	YES	not known if late sural required
Western red-backed salamander	1			00	The state of the s
Black salamander	×			YES	
California stender salamender		×		YES	777
Clouded salamander	1	×		YES	
Arboreal salamander			-	00	widespread; & wide variety of habitat conditions
Ensatina			-	no	ubic uses small down wood
Pacific giant salamander	×	•		YES	Gornez 1992, Raphael 1998
Cope's giant salamander	X	Access 11 to 1		YES	assumas santar ecology as w/ Pac. Cent Sal.
Olympic salamander	×		×	YES	SECOND SERVICE GOODLY OF WY FIGURE CARE IT DOES.
Northwestern salamander	l x		0.000	YES	
Shasta salamander	×	- 7		YES	
Rad-balled newt				np.	
Roughskin newt	×			YES	1
Pacific treefrog				no	
Tailed frog	×		x	YES	-
Cascades frog	1 -			no	
Red-legged frog				no	
Western spotted frog		_	-	no	
Foothill yellow-legged frog	1	-		no	
Western Toad	1-1	_	-	no	
Northern leopard frog	1	-		no	

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Reptiles

	2460000	USPWS Anthony of a)
Sec. 24	HE SVO CSOL PS KP CFW WO CWH	listing State listing OG assoc Enderric OG assoc status WA DR CA WA DR CA Loc Broa Reference

Reptiles	77								
Western pond turtle	10			-			_	_	_
Sharp taker shake	+:	-	-0-	-	-	-	-	_	-
Hubber boa	+-	-	-	-	-		-	-	-
Gopher snake	_		-	-	-	-	-	×	-
Western aquanc garter snake				-	-	-	-		×
Wostern terrestrial garter sitting	+-		-		-	-	-		X
Common garter snake	+-	-	-	-	-				×
Western rattlesnaka	-	- 1	-	-	-			-	X
Normem afigator lizard	+	-		-	-			-	*
Western fence (varg	-		-	-	-4		-	-	X.
	_	_							×

		1956	SC			1 X	Deany at all 1991
-		SC				X	Bearty et al. 1991
	- 1					1	1331
_			_				
-	_						
-	_						
-	-	-	-	- 1	_		
-	4	-	-	_			
-	-	-	-	_		100	

		PERMIT	1	1	_	Species	1525		
	inoc	forest		Hequires	Federal	Federal	USFS		inudeo
	data	SAT	Assoc w/	4441	LISHWS		sensitive species		field
Sciences		0	c	3	1	F	G I	181	Clato

Reptiles							
Western pond surfice			_	_			
Sharp taled snake			-	× -	Pl6	X	
Pubber bas		-1-	-			X	
Ciopher shake		+ -	-	_	-		10000
Western aquatic garter snake		+	-	-	_	-	
Westurn terrestral garter shake		+		-			
Common gorter snake		-	-		-		
Western rattlesnake	-	+					
Northern aligator lizard		-		-	-		
Wastern fency ilzard	-	1	-				

Appendix 5-A Terrestrial Vertebrates ("Long List") - Reptiles (continued)

	Criteria to old	for assi	gning sp essociat	pecies and list	Conclusion On old-growth assuciated		
Species	1	2	3	4	ist? *	Comments	

Reptiles		
Western pond turtle	no no	
Sharp tailed snake	na	
Rubber bos .	nu	
Gopher snake	no	
Westom aquatic garter snake	ng	
Western terrestnal garter snake	no no	
Common garter snake	10	
Western rattlesnaku	100	
Northern alligator izard	no	
Western fence lizard	no	

^{• &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 1

Species Fill UF SXC LSO PS KP OFM WO CWH Status Instrug OG 0880C FHORNIG OG 0890C Species WA GR CA WA GR CA Loc Book References			UST WE							die -		
Species III UF SVCELED PS KP DEW WO CWH STAILS WA DR CA WA DR CA LOC BACE Reference		References	isting	St	ate is	ing	OC	3 088	00	Feto	entic	OG 85500
	Species	THE LIF SWOLLSO PS KP OFW WO CWH	status	WA	OR.	CA	WA	OFF	CA	1,00	Bres	Heference

BIRDS	-	_	-	-		-	-	_			C	S(C)	2.1	-			_		Rudgero et al. 1991
Vartivo munelet	×	*	×		*	×	×	-	×	-	-	age	-7-	-	-	1	7	-	Trougher of the
Great blue heron:		-			-		-	X	×	100000000000000000000000000000000000000	-		-	-		-	-	1	
Barrow's gordeneye	\rightarrow		×		×	1-0	X	x		_		-	-	-		3 3		-	
Sufferend			X		X.		×	×		-	-	-		-	-	-	-	-	
Wood duck				_	×	114	-	×					-		-		-	-	
louded mergense:			_		x			X	_				-	4	-	-	-	-	
Common mergansa:	57							×	-					-	-	4 -	-		
farleguin duck	×		K		×				TO 70	CS		-	-	-	-	-	_		The second state 1001
Blue grouse		_	x	×	×			×	X.	_		-		*	. !	2			Huggaro et al 1991
Spruce grouse										1					-			-	1000
fuffed groups		X		×				×	×				-	-1-	Р	9		-	Nuggioru et al. 1991
Mountain quali		×					-		×	C5	-	_	-	7	Р	P	-	-	Rugginia et al. 1901
Saltor is gual						1			X		-				_				
Varnam's turkey					. *												-		
Wild bulkey								- 8	. *		-						-	-	
Vourning cove								×	Х.							Cal	-	-	
Band-bared pigeon					1.3		0.00	×	×	- management				b.	h	3.	_	4.	Ruggiero et al. 1001
Northern gashawk			X.			×	X.	X	*	C2	C	SIC	SU	. +	+	4	_	-	Hayword et al. 1900
Sharp-shinned hawk						1		X	X.							-		1	
Cooper's hawk								×	×								-		
Hard-balled harwik	TO	-	-					×	×							_	_	-	
Golden eagle			100	100				×										1	
American kestral	S 1	-				14.5	- 0							100					The second second
Mentra																			
Peragrine facon									×	£	E	E	7						-
Prairie fulcori						Į.			· K			41.		7.5					_ · · · · · · · · · · · · · · · · · · ·
Baid engle	×			×	×	×	-	×	×	T	1	1	E						Anthory et al 1960
Ospirey				1	×	1		-	X.					1					
Turkey vulture					15-1			×	X.	3								1	
Barred owl		*		1				×						Es.	.7	7			Puggero et al. 1991
Northern pygriy-owl	×	×	×	01	-		×	×	×					P.	+	7	-	1	Ruggeria et al. 1904

Appendix 5-A
Terrestrial Vertebrates ("Long List") - Birds Part 1 (continued)

	More	abundant				Species	lists		
	in Oc	forest		Requires	Federal	Federal	USFS		Inadeq
	field data	SAT judgment	Assoc w/	og elements	USFWS T&E	USFWS Candidat	sensitive species	State	field data
Spacies	A	В	С	D	E :	F	G	н	

BIRDS Marbled murrelet χ R6 X / X X Great blue heron Barrow's goldeneye X X Bufflehead X X Wood duck X X Hooded merganser X X Common merganser X R6 Harlequin duck χ Blue grouse X Spruce grouse Ruffed grouse X Mountain quail California quail Merriam's turkey Wild turkey Mourning dove Band-tailed pigeon Northern goshawk X X Sharp-shinned hawk Cooper's hawk Red-tailed hawk Golden eagle American kestrel Merlin Peregrine falcon X A6 X Prairle falcon Bald eagle R6 Osprey X

X

Turkey vulture Barred owl

Northern pygmy-owl

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 1 (continued)

	Criteria to old-				Conclusion: On old-growth associated			
Species	1	2	3	4	list? *	Comments		countries our

BIRDS recently listed as Threatened YES Marbled murrelet X X no Great blue heron YES riparian management for snags Barrow's goldeneye X YES riparian management for snags Bufflehead X YES riparian management for snags Wood duck X riparian management for snags YES Hooded merganser X YES riparian management for snags Common merganser X YES riparian management for snags Harlequin duck X Blue grouse Spruce grouse no no Ruffed grouse no Mountain quail California quail ПО Merriam's turkey מח Wild turkey ΠĎ Mourning dove no Band-tailed pigeon ПΩ Reynolds references; OG associated on Olymp. Pen. YE.S Northern goshawk X Sharp-shinned hawk Cooper's hawk no Red-tailed hawk no по Golden eagle American kestrel 110 Mertin ПО Peregrine falcon na Prairie falcon YES Bald eagle X X X snags, esp. along lakes, rivers Osprey ΠD ПО Turkey vulture YES Brown lists elements incl. snags Barred owl check factor D?; Brown lists snags YES Northern pygmy-owl

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Vertebrates ("Long List") - Birds Part 2

	8.				0000000				8	USFWS			ŀ
				Refer	References	so.				listing	ž,	State listing	ting
	ВΡ	UF	SVO	SVO LSO	PS	Ϋ́	WHO	WO	CWH	status		ОВ	Q Q
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ier.		×		×				×	×		ပ	S(C	
ocdpecker	×		×		×	,	×	×	×		Σ		
oodpacker	×		×		×	. 67 COS	×	×			20.522		
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dpecker		×			6	70 -s	×						_
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(I)						. 3		×	×			-	
apsucker	×	×		×				×	×			0.00	
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T T 7 * * * * * Huggiero et al. 1991	listing	ž	State listing	ting	90	assoc.	c.	Endemic	smic.	OG assoc.
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+ P P Ruggiero et al					n_	+	a ₋		3 (6)	968
d +				:0 E	+	αĻ	<u>a</u>			
				- 042	a_	+	Ы			Ruggiero et al. 1991

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 2 (Continued)

	More a	abundant				Species	lists		
	in OG	forest	Na.	Requires	Federal	Federa! -	USFS		Inadeq
	field	SAT	Assoc w/	OG .	USFWS	USFWS	sensitive	State	field
Concine	data	judgment	192	7570	T&E	Candidat	200000000000000000000000000000000000000	list	data
Species	Α	В	С	D	E	F	G	Н	
Northern spotted owl	Х				X		Fl6		
Flammulated owl			X	x					
Great gray owl			Х	Х					
Western screech gwl	777-77	Apr / UK-A					530 -		
Great norned owl					· · · · · · · · · · · · · · · · · · ·				4779000
Long-eared owl					W L				
Northern saw-whet owl							*	• • • • • • • • • • • • • • • • • • • •	·····
Common nighthawk			1				*		-
Whip-poor-will	184				·	- X			
Allen's hummingbird									
Calliope hummingbire						32.00	- 3		
Rufaus hummingbird								X	
White-throated swift		1			T				
Vaux's swift	X			Х		-		Х	
Black swift	16071								
Tree swallow				x				8 37	- 380.01
Violet-green swallow								0	
Belted kinglisher			6					x	
Pileated woodpecker			х	X	r				
Cowny woodpecker	7.500			X				()	
Harry woodpecker	х	9 1 1922 1821	5-18 - 2	X				х	
White-headed woodpecker			Х	Х	H		- 10	X	
Black-backed woodpecker			X	X					
Acarn woodpecker				Х					
Lewis woodpecker			1	ĸ				- 1	1 31
Three-toed woodpecker			X	X					
Nuttail's woodpecker				X		HK9	+		
Common raven				Α				2	
Gray jay			3 /3	1887			7		
Steller's jay									
Clark's nutcracker (1)		 				<u> </u>			
Red-breasted sapsucker		X		х		·			
Walamson's sapsucker		+	Χ	X			-		

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 2 (continued)

	to	,	lasan labuayan		Canclusian:	
	10000		lgning sp		On old-growth	
			associat		associated	C
Species	1	2	3	4	list? "	Comments
		110	-	I .	YES	*
Northern spotted owl	Х	100	X		1	NCO CAR C
Flammulated owl		Х	ļ		YES	occurs in NSO range only in riw CA? Goggans 1986
Great gray owl		X			YES	E. Bult references
Western screech owl		X:	,		по	777 7 201 212 22
Great horned owl			15		по	F ##
Long-eared owl			1		no	
Northern saw-whet owl	-		1	_	no	
Common nighthawk					по	
Whip-poor-will					по	
Allen's hummingbird	•				no	
Calliope hummingbird					nυ	
Rufous hummingbird			WE'RE	١.	מת	
White-throated swift					an	
Vaux's swift	Х		X		YES	closely assoc. w/ OG; WA candidate
Black swift					na	
Tree swallow					na	
Violet-green swallow					по	
Belted kingfisher				ļ .	an	
Pileated woodpecker	V480 00	X			YES	
Downy woodpecker				×2.11 1.20 1.20 1.20 1.20 1.20 1.20 1.20	по	uses small snags
Hairy woodpecker	Х		Х		YES	closely assoc. w/ OG in no. CA (Raphaei 1988)
White-headed woodpecker		X	6		YES	uses large snags; Bull reference
Black-backed woodpecker		X			YES	uses large snags; Goggans et al. 1987
Acarn woodpecker				o. m. ca (40%)	an	assoc. w/ oak woodlands, hardwood components
Lewis woodpacker					no	
Three-toed woodpecker		Х			YES	Brown lists as using snags; Goggans et al. 1987
Nuttail's woodpacker				Awaren	no	
Common raven	14-11-15		1 "		по	
Gray jay					an	
Steller's jay					по	
Clark's nutcracker (1)					no	,
Red-breasted sapsucker	. Х		1-	ļ	YES	
Williamson's sapsucker		x			YES	1 (2004) As 1 (2004) As 1 (2004)

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 3

	_								USFWS		Info	rmetic	n froi	n US	FWS	Craft I	RECOVE	vy Plan (Anthony et al.)
Species	-	-	-	Hoter	Wholes				lating	- 51	ate i	sting	00	3 995	oc.	End	iomic -	OG assoc.
Chacin	, AP	UF	SAC	1.80	PS K	CFW	WC	CWH	15113,01	WA	OR	CA	WA	CFR	CA	Lec	Bros	Peterence
Northern Roker	-	1	-	1 - 7	-	-												The state of the s
Duskylf-lammond's flycatcher		×	\vdash	X	-		X	×					P	+	P			Ruggiero et al. 1991
Western flycatcher	-	X				-	-	X.						+				Ruggiero et al. 1991
Olive-sided flycatcher	A.	×		×			×	X					P.					Rupgiero et al. 1991
Hammond's flycatcher	×	×	-		-		×	X	-				20.				X	
Willow flycatcher	1 x	A		x			X	-30					la.	P				(see commants)
Western wood-peawee	1	×		-	×		_											
Black-capped chickadee		×			-		X	×					Pr.	P.	- P			Ruggiero et al. 1991
Chestrut-backed chicksdae	×	×		70	-		X						7	P			X-	Ruggiero et al. 1991
Mountain chickadee	- ^	- 8		/ X	-		X	X					+	+	+			Ruggiero et al. 1991
Brown creeper	×	-	1	-	-		×	X										
Red-breasted nutriation	- x	X	10	X	-		×	X					+					Ruggiero et al. 1991
White breasted nuthation	- ^	÷		х	-	-	×	X					+	7	7			Rugglerp et al. 1991
Pygmy numatch		-	×	-	-		X	X					7	P	7.			Puggiero et al. 1991
Winter wrent	* ×	×	- 8		-	X	X	X			=		+	+	+			Ruggiero et al. 1991
House wram	- 1	*			-		X	X					+	+	. +			Ruggiero et al. 1991
Wistiam bluebrd		-		-	-		_	-					9	P	7			Ruggiero et al. 1991
Mountain bluebird		-		-	-			X										
Golden-crowned kindlet		-		-														
Ruby crowned kanglet		X		-	-		X	X					P.	P	p.			Ruggiero et al. 1991
American robin		x		×	-		X.	X					3	p	7		4	Ruggiero et al. 1001
Figrinit thrush	×	×		2	-	\vdash		×					P	+	+			Plugglero et al. 1991
Swianson's thrush	1 ^	x.		×			X	X					b	p.	+			Rugg et al. 91, Raphael 198
Townsend's solitaire		x		-		-	X	X					+	p.	9.		100	Rugg et al. 91
Varied thrush		x		-	_		X	X		C	S(C		+	+	+			Goggens 1986
Wrentt		A.		X	-		L	x			100	E	+	+	P		100	Ruggiero et al. 1991
Cectar waxwing		-		-				_					P	P	+			Ruggiero et al. 1991
3rewer's blackbird				-				X										a life of the state of the stat
termit/Townsend's warbler		×			-			X									-	
Acciditively's warbler		X		-		-	X						h	P				Auggiero et al. 1901
Back-throated gray warbler		A.		-	-		-	-					P	P.	7			Ruggiero et al. 1001
Fashville worther		-		-			X	X					P	P	P			Puggiero et al. 1991
Sermit wortser		DO:	-	-	-	-	-	X					7	P	p.			Pluggiero et al. 1001
	1 1	44.1		- 1			00	X					2	P	+			Ruggiero et al. 1991

Appendix 5-A
Terrestrial Vertebrates ("Long List") - Birds Part 3 (continued)

	More a	abundant				Species	lists	HERMAN AND AND AND AND AND AND AND AND AND A	
	in og	forest	1	Requires	Federal	Federal	USFS		Inadeq
	field	SAT	Assoc w/	(OG	USFWS			State	field
r <u> </u>	data	judgment	255.00		T&E	Candidat	species	list	data
Species	Α	В	С	D	E	F	G	н	1
Northern flicker			χ	х			· · ·	9	
Dusky/Hammond's flycatcher		10 100 100				250.40			
Western flycatcher	×		100					- N - VAI	
Olive-sided flycatcher	100000000000000000000000000000000000000			- 3			×	- Martin 2014/101 - 1	33. S. S.
Hammond's flycatcher	×	1	1	- 18 tata					#
Willow flycatcher		-				1			
Western wood-peewee	-1	5							
Black-capped chickadee		****	50 60			-			· · · · · · · · · · · · · · · · · · ·
Chestnut-backed chickadee		x							
Mountain chickadee		5 - 7	2000		5 33		90 S	383	H. (8)
Brown creeper	х			х					
Red-breasted nuthatch			х	×	-				
White breasted nuthatch		1	х	x					
Рудту лuthatch	5. S.	†	x	х					
Winter wren		×							
House wren	2 50								
Western bluebird									
Mountain bluebird									
Golden-crowned kinglet		x					-		
Ruby-crowned kinglet			C18						23632
American robin			200000					-379-7983	
Hermit thrush		X							
Swainson's thrush							- 7		
Townsend's solitaire								x	
Varied thrush	.,,,,,,	x						x	-
Wrentit	2		2,44,44						
Cedar waxwing					77				
Brewer's blackbird	1 1 1					*			
Hermit/Townsend's warbler		x					1		
MacGillivray's warbler		-					2.6	W-12 59	
Black-throated gray warbler		 	77.E						
Nashville warbier			+					ME SAE	
Hermit warbler			-		SV 1534:	ia ::			

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 4

			. 9	Refer					
Species	RP	UF	SVO	LSO	P5	KP	QFW	WO	CW
Oranga-crowned warbler		x						x	x
Townsend's warbler		x						(x)	X
Yellow warbler				(700		11 3		X
Wisch's warbler	x	×		x	1	200		x	
Yellow-rumped warbler		×					7	×	X
Hutton's vireo		x		11.5112.5					×
Soltary vireo		x		ĸ				X	X
Warbling vireo	x	X						x	×
Western tanager		X		x				x	X
Chipping sparrow		x				-7	1717		
Dark eyed junco		×				-		×	
Rufous-sided towhee		x							
Song sparrow	-	X							
Black-headed grosbeak	200	R		, x	and the			in let	X
Evening grosbeak		×			- 3			X	X
Pine grosbeak								X	Ι.,
Pine sision		X		×				×	×
Purple finch		X						¥	x
Cassin's finch									×
Red crossbill		X		X	1	1		X	×
White-winged crossbill							x		
Common redpol							X		

listing	Sta	ns Ist	gnt	00	ass	DC.	End	emic	OG assoc.
status							Lec	Bros	Reference
-				2	P	P	-		Ruggiero et al. 1991
				?	P	9	-		Augglero et al. 1991
-				-	P		-		Ruggiero et al. 1991, Raphael 1985 (CA
				P	P	Р			Ruggiero et al. 1991
				Р	P	Р		55	Ruggiero et al. 1991
				P	+	+	ar l	77.0	Puggiero at al. 1991
11-F711/01				Р	P	P			Pugglero at al. 1991
				Р	P	+			Ruggiaro at al. 1991
Table 1	1000	aviz	550.5	?	P	7			Ruggiero et al. 1991
	,	18		P	P	P			Ruggiero et al. 1991
				7	P	P			Ruggiero et al. 1991
أعمر		7.0		P	P	?			Ruggiero et al. 1991
				P	+	.+			Ruggiero et al. 1991
_				P	P	P			Ruggiero et al. 1991
		- 1		Р	é	P			Ruggiero et al. 1991
				P	P	P			Puggiero et al. 1991
				+	+	P	-		Ruggiero et al 1991

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 3 (continued)

			a princip		Conclusion: On old-growth associated	
Species	1	2	3	4	7st7 *	Comments
Northern flicker		×			YES	Assert Manual Control Control
Dusky/Hammond's flycatcher					no	assoc. w/ open forests, but uses ig snags
Western Sycatcher	×				YES	parties and POC to the POC to the
Olive-sided flycatcher	-				700	lissoc. w/ OG in no. Cal. [Raphael 1988]
Harmond's flycatcher	×				YES	Sharper of the Control of the Contro
Willow flycatcher	1				100	Fluggiero et al. 1991; Sakai & Noon 1991 (CA)
Western wood-peewee					70	
Black-capped chickadee					no	
Chestrut-backed chickadee	×		1		YES	
Mountain chickadee	-	_	1		no	assoc. w/ OG in no. Ctsl. (Paphael 1998)
Brown creeper	×		100		YES	
Red-breasted outhatch		×			YES	assoc. w/ OG in no. Cal. (Ruggiero et al. 1991)
White breasted nuthatch		×	-	_	YES	uses smaller snags; Brown lists in mature & OG
Pygmy nuthetch	-	×		_	170.00	uses smaller enags; Brown lists in mature & OG
Writer woen	×	-2-			YES	uses smaller snegs; Brown lists in mature & OG
House wren	- A	_		_	1000	assoc. w/ OG in no. Cal. (Flaphsel 1988)
Western bluebind				_	no	
Mourtain bluebird		_		_	no	
Golden-crowned kinglet	-				no .	
Publy-crowned kinglet	×				YES	assoc. w/ OG in no. Cal. (Paphael 1568)
American robin				_	no	
Hornit thrush	×	_		_	(10)	
Swanson's thrush	- X			_	YES	assoc. w/ OG in no. Cal. (Raphael 1988)
Townsend's solitaire					no	
Varied thrush					70	
Wrantit	×				YES	tissoc, w/ OG in no. Cal. in winter
Codar waxwing					no	
Brewer's blackbird					na na	
Hermit/Townsend's warbler		-			no no	
MacGillyray's warbler	Х.					see individual species ratings
Black-throated gray warbler					ng	The state of the s
Nashville warbier					no	
Nasrivile warbier					no no	

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 4 (continued)

		abundant				Species	tists	17.7	
		forest		Fiequires	Federal	Federal	USFS		Inadec
	field data	SAT judgment	Assac w/	oo elements	USFWS	LISFWS Candidat	sensitive soecies	State	field data
Species	A	В	G	D D	ε	F	G	н	1
Orange-crowned warbler	T	7	-			-			
Townsend's warbier		×	×			-		*	
Yerow warbler	-		-		30 70			_	
Wilson's warbler	X								
Yellow-rumped warbier	-	-		-	eller i —				0.000
Hutton's vireo									
Solitary vireo			-						
Warbling virgo		×				1			
Western tanager			-	-			-13		
Chipping sparrow		-			100				
Dark-eyed junco								-	
Rufous sided townee		1 1	7	-			_	_	
Song sparrow			-					_	-
Black-headed grosbeak		1		-	-	-			
Evening grostieak			-		-		-		_
Filme grosbeak				-			- +	- ++	_
Fine siskin	_	1	41.11			-			
Purple finch	777				-	~	-		
Cassin's finch		T				2			
Red crossbili			×	x		- 1	27.5		
White-winged crossbill		-				11000		-	-
Common redpoli		1		-			10000		

Appendix 5-A Terrestrial Vertebrates ("Long List") - Birds Part 4 (continued)

			igning s associa		Conclusion: On old-growth associated	
Species		2	3	4	list? *	Comments
Orange-crowned warbler	-1	-	T	T	no	THE PLANT OF THE PARTY OF THE P
Townsend's warbler	×			-	YES	mature (Brown '85, Marcot '85), OG (Brown '85)
Yellow warbler			1		na	
Wilson's warbler	x				YES	in OG in no. Cal. (Raphael 1985), but also in yng grth
Yellow-rumped warbier					по	755
Hutton's vireo			1		no	
Solitary vireo					מח	
Warbling vireo	×				YES	assoc. w/ OG in no. Cal. (Raphael 1988)
Western tanager					no	
Chipping sparrow	77				na	
Dark-eyed junco			1		no	
Rufous-sided townee			-	1	no	
Song sparrow			77.55		no	
Black-headed grosbeak					no	
Evening grosbeak	3 - 1	- 1		1 100	no	
Pine grosbeak					no	
Pine siskin					no	
Purple finch					no	
Cassin's finch					no	
Fled crossbill	7,7%	X	2000		YES	large canopy, no fragmentation; species complex
White-winged crossbill		6			na	
Common redpoll			1		по	

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Mammals Part 1

	600		94	Refer	ence	ö		No. of the	
Species	RP	UF	SVO	0.000	2000	KР	OFW	WO	CWI

		Infor	natio	n from	I USF	WS [Oraft F	ecove	ry Plan (Anthon	y et al.)	
USFWS				000000000000000000000000000000000000000	_						
listing	Sta	ite lis	ting	OC	assu	OC.	Ende	oims	OG assoc		
status	WA	OR	CA	WA	OR	CA	Loc	Broa	Reference		

Marten	χ		X	X	Х	X	Х	X	X
Ermine		Х	T	8			318	X	X
Long-tailed weasei								_х	X
Fisher	х	Х	X	X	X	x	X	X	χ
Wolvenne	X	530		X			X	X	_
Gray wolf	Х	18		X			1965 X		75
Black bear								X	X
Grizzly bear	х			X				X	_
Parcupine			1-35-31 100-31					X	X
Mountain beaver									X
Brush rabbit			1759		261/82			X	
Raccoon						<u>_</u> ,		X	_ X
Ringtail				8		- 8	X		10.20
Opposum				_				X	
Dusky-fonted woodrat	х			,				Х	X
Bushy-tailed woodrat	Х			X		_		X	X
Northern flying squirret	х	X	.03355	X				X	X
Western gray squirrel				88	X			X	X
Golden mantled ground squirrel								X	X
Cascade martied ground squirrel				\$ 150 0 253				X	
Siskiyou chipmunk								. Х	X
Yellow pine chipmunk (1)					N.	222			X
Yellow-cheeked chipmunk			Ì.,						X
Allen's chipmunk			2000			16X			X
California chipmunk									X
Douglas squirrel		X	8	X	ceW/		ļ	X	X
Townsend's chipmunk		X						X	
Red tree vote (P.longicaudus)	Х	X	匚.	X				X	X
Red tree vole (P.pomo)	X	X		X				X	X
White-footed vole	х		X	X				K	
Western red backed vote	X	Х		Х		1		X)

	G	S	S	+	ŧ	+	-32 -33	- 8	Marshall 1991
	. -			7	P	2	-8 +	-	Ruggiero et al. 1991
	S				•				
CS	S	S	ŞC.	+	7	+		- //	Huggiero et al. 1991
C2	М	Ŧ	T			2		- 2	
E	E				7			10.00	
				_,,	10.7	-553		-30X 	
Ť	E		1	- /					
				-			- 100	- SVESSV	
			88. 8		- 1				
		-					-		
		- 1	33	_		1886			
- 1									
		i i			2 60				
		-	SC			-;-		X	Raphael 1985,98
_		•		-			-	X	
659			SC	2		2			Carey 1992 (OR)
		<u> </u>	30		22				
	•		- 37						1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
				_			15/27		
								Γ	
	8				-		-		
		 —		v	_	-		.—	
	.—			- 0		-			
						- 3		- 10	1
				?	?		_	- 6277	Raphael 1968 (CA)
	100000		H	-	t	<u> </u>	0 0	35.50	Rosenberg & Anthony 1992
	-	-		055	*		X	-	Huggieru et a. 1991; Gomez 1992
		-	SC	10/0		++	X	-	Ruggiero et al 1991
On		C/D/		1000			X	-	Gomez 1992
C5		S(R)	عد		2		X	-	Haphael 1948

Appendix 5-A
Terrestrial Vertebrates ("Long List") - Mammals Part 1 (continued)

	More	abundant	8		-	Species	lists		
		forest		Requires	Federal	Federal	USFS	Charles	Inaded field
	field	SAT	Assoc W/		USFWS	USFWS	sensitive	State	date
	data	judgment	opforest	elements	T&E	Candidat	species		Uala
Species		B	C	D	E	F	G	н	

MAMMALS Marten	-		х	х				<u>x</u>	
varien									
									
_ong-tailed weasal			- x	- X		X		x	
Fisher						X	P6	х	X
	-		360	3744	×		R6	x	
Gray wolf	-				, T				
Black bear				· · · · · ·	X		R6	х	
Grizzly bear	<i>5</i>	-	-				The second		
Porcupine		 	-	-2-					
Mountain beaver			-	500 %	<u> </u>				
Brush rabbit		-		-	† · · · · ·				
Raccoon		-		-		-			
Ringtail		+	-			78		- 10	
Opposum	<u> </u>	_	×		-	-		X	1000
Dusky-footed woodrat	x	<u> </u>	`	 				_	90
Sushy-tailed woodrat	_		-	-	-			х	
Northern flying squirrel	X	10 30	X	X	+	. 1.755;			
Western gray squirrel	L			-		-	-		900
Golden mantled ground squirrel	ļ			-			- A		
Cascade mantled ground squirrel	<u>l</u>						-	-	-
Siskiyou chipmunk			1 22	-		100	100 100		
Yellow pine chipmunk (1)	2.5			1	_	-	· -		i
Yellow cheeked chipmunk						 			
Allen's chipmunk			<u> </u>	1					
California chipmunk				-	980 30				-
Douglas squirrel	×		X	X			1 6		-
Townsend's chipmunk	х						-	-	
Red tree vote (Plongicaudus)	×		X						-
Red tree vale (P.pamp)		х	X			1		X	-
White-footed voie						X	R6	×	×
Western red-backed vole	Х	100		X					1

Appendix 5-A Terrestrial Vertebrates ("Long List") - Mammals Part 1 (continued)

					Conclusion:		
	Criteria f to old-g	Criteria for assigning to old-growth associated	gning sp associal	ing species sociated list	On old-growth associated		
Species	1	2	3	4	list? *	Comments	

MAMMALS uses snags & down logs for den sites Marten assoc. w/ early suite, stages too cn Ermine assoc, w/ early succ. stages too ПО Long-tailed weasal uses snags & down logs for den sites YES Fisher high elev./subalpine associate no Wolverine по Gray wolf по Back bear ro Grizzly bear na Parcupine most abund, in early growth stages по Mountain beaver no Brush rabbit по Placcoon no Ringtail no Opposum also in early shrub stages; but CC uso > mid-succ. YES X Dusky-footed woodrat × no Bushy-tailed woodrat YES X x K Northern flying squirrel пп Western gray squirre! n: Golden mantled ground squirrel OL Cascade mantled ground squirral no Siskiyou chipmunk по Yellow pine chipmunk (1) no Yellow-cheeked chipmunk го Alien's chipmunk ПО California chipmunk requires ig conflers w/ seed production YE5 X x Douglas squirrel but also is abundant in early stages YES Townsend's chipmunk × recov plan shows OR only YES Red tree vols (P.long.caudus) recoviplen shows CA only YES X Red tree vole (Pipnma) riparian assoc.; not sig. across seral stages (Gomez) ПО White-footed vole YES Western red-backed vole ж

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Mammals Part 2

		op o		Refe	rance	5	ATTES	11.82	\neg	isting	St	ate is	ting	00	3 855	oc.	End	етіс	OG assoc
Species	ΗP	ÜF	SVO	1,50	PS	ΚP	OFW	wo	CWH	status									Reference
														-				-	A south a to a south a
Heather vole (1)			_					X					- 11						
Southern red-backed vale		x						×				- 81		Р					Puppiero et al. 1991
Forest daer mouse	X.	X		×										+			X		Puppero et al. 1991
Deer mouse		x		×				- 9	×					+	+			4	Rug. 91 (WA,OR); Raph 88 (CA)
Western jumping mouse					- 3		100	- 4	x	-				- 1					
Pacific jumping mouse									x								200	-	
Pinyon mouse		x		-					×		7					P			Puppero at al 1991
Maish shrew		x		×						E			-	-	+				Puppero et al. 1991
Montane shrew		×		-										P	Р	P			Ruppero et al. 1991
Masked strew			L.U		-			x			-		-	-					
Dusky shrew							-	x	-1									_	
Trowbridge's stylew	1	x	-					×	x		-			P	Р	p	-		Rupgero et al. 1991
Pacific shrew		×		x			$\overline{}$	-	x					-	-				Rugg 91 (CR), Ragh 88 (CA)
Vagrant shrew		х		177				×		-				Р	р	7			Ruggiero et al. 1991
Coast mole		x			7.								-	P	p.	9			Ruggero et al. 1991
Stygw-mole	×	×		×				×	×			-		P	+	2			Ruggero et al. 1991
Big brown bat		x		x				x	×								Ú		Ruppero et al. 1991
Silver-hered bat	×	x		x				x	×					+	-	2	0		Ruggero et al. 1991
Western (Townsend's) big-eared bat	x									C2	C	Sic	50			-		-	- Coggrad State 1991
Palid ber								×				0,0	-						
Hoary bat							***	×	x		-							-	-
Brazilian free-tailed bat		-						×										- 1	1 47 1100
Red bat						_			x	***						-			
Long-legged myotis	×	x		x				x	x	100	м					2	-	-	Ruggero et al. 1991
Yuma myotis		×		×				×	х.		-	-				9			Ruggiera et al. 1991 (Myats A camplex
Caltornia myotis	4	×		x				×	x				-			2			Ruggiero et al. 1991 (Myges B complex
Keen's myotis		x		x		-		-					-	-		2			Ruggero et al. 1991 (Myots B complex
Long-eared myots		x		x		-	_	x	x	-						9			Ruggiero et al. 1991 (Myots B complex
Western small footed myots		×		x			2	-	x		-					2	1.50		Ruggiero et al. 1991 (Myots B complex
Fringed myotis		x		x		_	-				-	-	-	2		7			Ruggero et al. 1991
Uttle brown myoris		x		×			-	x	x				- 1	-		2			Ruggiero et al. 1961 (Myots A complex)
Black-tailed deer		- ^				-	-	x	^		_		-	-	100	-			Indignate at all 1991 (Mydds A complex)
Mule deer			-	-		-	_	X	-		-		-	-					

Appendix 5-A
Terrestrial Vertebrates ("Long List") - Mammals Part 2 (continued)

	More	abundant	Ŷ.		100	Species	lists		
	inon	forest		Requires	Federal	Federal	USFS		Inadeo
	field data	SAT judgment	Assoc w/	- COCI	USFWS T&E	USFWS Candidat		State	field data
Species	A	8	С	0	E	F	G	н	T
								_	
Heather vole (1)			0.000						
Southern red-backed vote	15-31-	x		×					x
Forest dear mouse		X2	×						
Deer mouse	×		X						
Western jumping mouse			The same of		7				
Pacific jumping mouse			1.00	100				1000	- 5
Pinyon mouse									
Marsh shrew		1							
Montane shrew			SHOWARE	in angru					
Masked shrew			x						
Ousky shrew		1	×			9			×
Trowbridge's shrew			×	- 49			m-E/E		100
Pacific shrew	×		×						11.7
Vagrant shrew			. 9						
Coast mole			x						
Shrew-mole		x?	×	2.5					x
Big brown bat	×	T-1		×					100
Silver- haired bat	×			×			- 00		
Western (Townsend's) big-eared bat						×	R6	×	
Palid bat			×						
Hoary bat			×	×					
Brazilian free-tailed bat									
Red bat							-1111		
Long-legged myotis	×	Lis.	×	×				×	
Yuma myotis	×		×	×			(2015)	e a mezi	
California myotis	×		×	x				1	
Keen's myotis	×		x	×				Ü.i	
Long-eared myotis	×		×	×					331
Western small-footed myotis	×		×	x			LLL.	10	Service of
Fringed myotis	×	122	. 7			Lane I			
Little brown myotis	×		×	×					13
Black tailed deer				-					

Appendix 5-A
Terrestrial Vertebrates ("Long List") - Mammals Part 2 (continued)

		a for ass	_		Conclusion: On old-growth associated	
Species	1 1	2	3	4	list? *	Comments
Heather vole (1)	<u> </u>					
Southern red-backed vole	 _	1		-	no	
Forest deer mouse	. х	1-	1		YES	littie data available
Deer mouse	X	12.7		-	YES	
Western jumping mouse	X		ļ	1	YES	data show OG, but also very abund, in early seral veg.
Pacific jumping mouse	0 50				מח	
Pinyon mouse	L			1	no	
Marsh shrew					no	assoc. w/ early seral stages
		0.000	25		no	strong riparian assoc. (Gomez 92)
Montane shrew Masked shrew			74.0		no	1
Dusky shrew		<u> </u>		ļ.,	no	boreal, widespread species
		4	<u> </u>		no	
Trowbridge's shrew Pacific shrew				_	no	broad assoc. w/ all forest stages
Account to the second s	x	20			YES	abund in young forest (Gomez 92) but taxonomy uncertain
Vagrant shrew					na	low elev, early stage assoc. (Gomez 92) but tax uncertain
Coast mole		L		A110000 1	na	fossorial, tied to soil structure
Shrew-mole	X				YES	regional OG analysis shows *** (Aubry)
Big brown bat	X	%			YES	Christy & West in press; comb. w/ fringed in Rugg. et al. '91
Silver- haired bat	X				YES	Christy & West in press
Western (Townsend's) big-eared bat		100			по	Christy & West in press
Pallid bat					no	cliffs and caves (Ingles 1967)
Hoary bat		x			YES	Christy & West in press
Brazillian free-tailed bat			0		по	assoc. w/ caves (Brown 1985)
Red bat	7050.202				מח	
Long-legged myotis	X	X	х		YES	Christy & West in press
Yuma myotis	х	х	(c) = 0.		YES	part of "Myotis A" group in Ruggiero et al. 1991
California myotis	X	х			YES	part of 'Myotis B' group in Ruggiero et al. 1991
Keen's myotis	X	х			YES	part of 'Myotis 8' group in Ruggiero et al. 1991
Long-eared myotis	Х	х	. N N N N N N N N N N N N N N N N N N N		YES	part of 'Myotis B' group in Auggiero et al. 1991
Western small-footed myotis	Х	х	1957/04/2		YES	part of 'Myotis B' but NOT OG associated
ringed myotis	X		- 4		YES	? combined w/ big brown bat in Ruggiero et al. 1991
lttle brown myotis	Х	х			YES	part of "Myotis A" group in Ruggiero et al. 1991
Black-tailed deer					na	Fare of Brook Hill ledition of at 1991
Mule deer	-			-	no	

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

Appendix 5-A Terrestrial Vertebrates ("Long List") - Mammals Part 3

	Heferences										
Species	RP.	UF	SVO	LSO	PS	KP	OFW	WO	CWH		
Elv				-	x l			×			
Elk											
Mountain fon	200							×	×		

USFWS		Intorr	natio	n fron	n USF	ws	Oraft P	ecove	ry Plan (Anthony et al.
listing	g State listing		00	OG assoc.			omic	OG assoc	
status	WA	OR	CA	WA	OR	CA	Lee	Bros	Reference
		-	-				400	57.44	T. resultation
									1
== 10		-							
C5									10/20

	2.5000	abundant forest		Requires	Federal	Species Federal	lists USFS		inaded
	field data	SAT	Assac w/	0.0	USFWS T&E	USFWS Candidat	sensitive species	State	feid data
Species		. 8	c	D	£	J	G	н	- 4
Elk			×	x	7 1			-	
Mountain tion		*							
Lyrox			x	×			R6		

		Orteria for assigning to old-growth associ			Conclusion: On old-growth associated	711
Species	,	2	3	4	tist? *	Comments
Ek		×		-	YES	OG assoc. on Olympic Peninsula
Mountain for:					na.	
Lyrox		×	2		YES	req. old for, cov. & early seral for feeding; Koehler 190?

^{* &}quot;old-growth associated list" = "short list" (see Appendix 5-D)

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